

FIG. 1

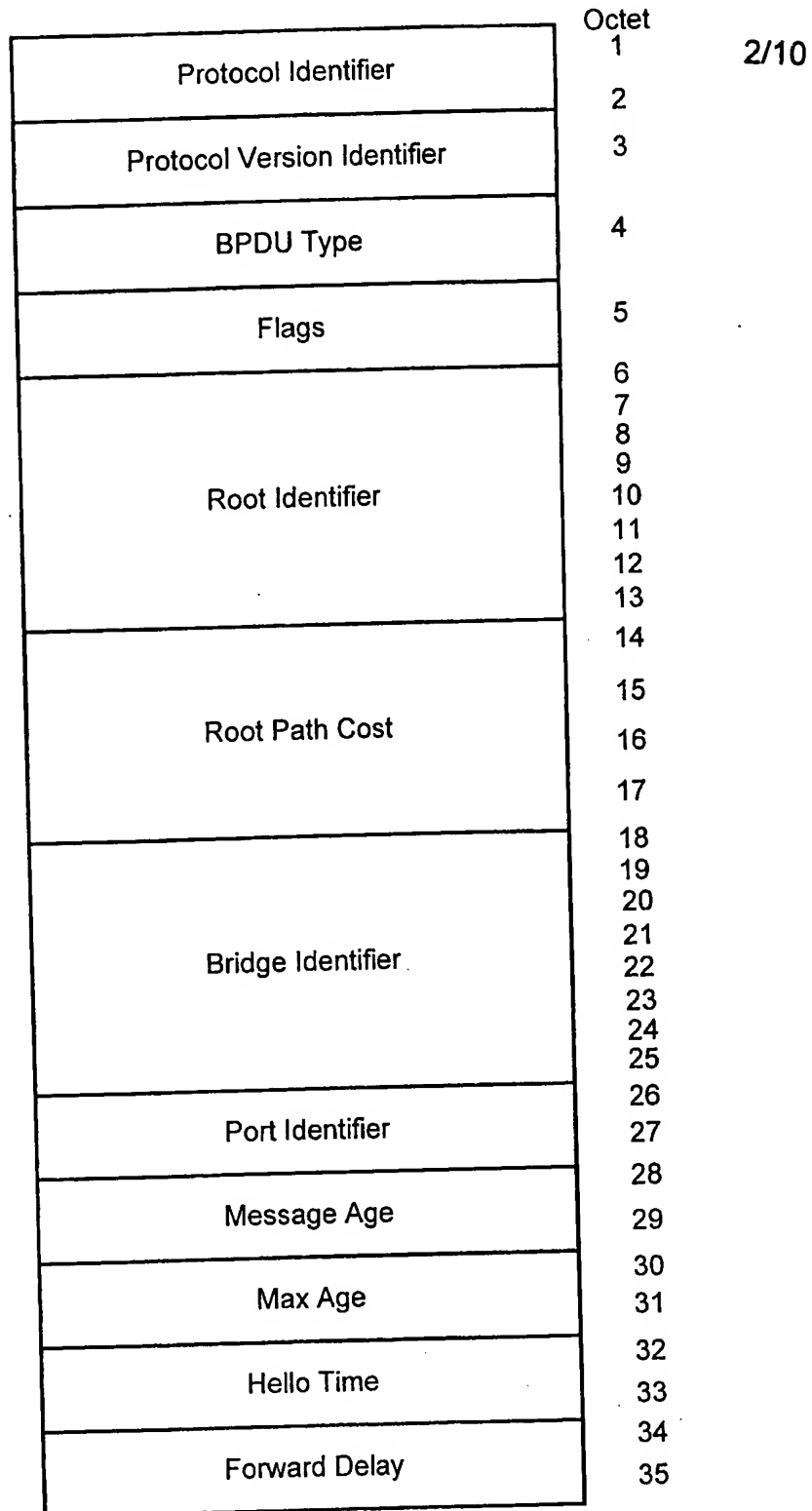
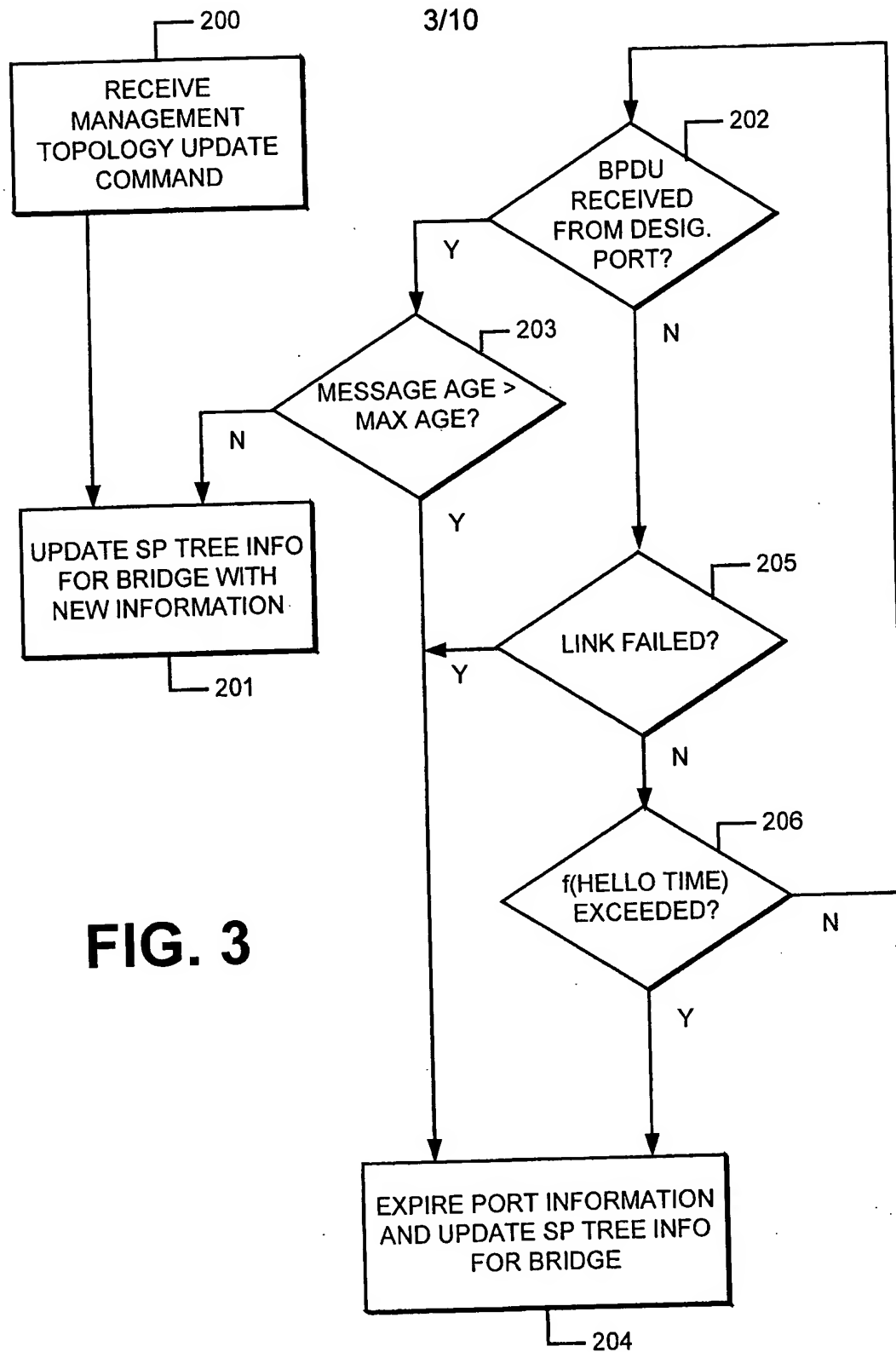
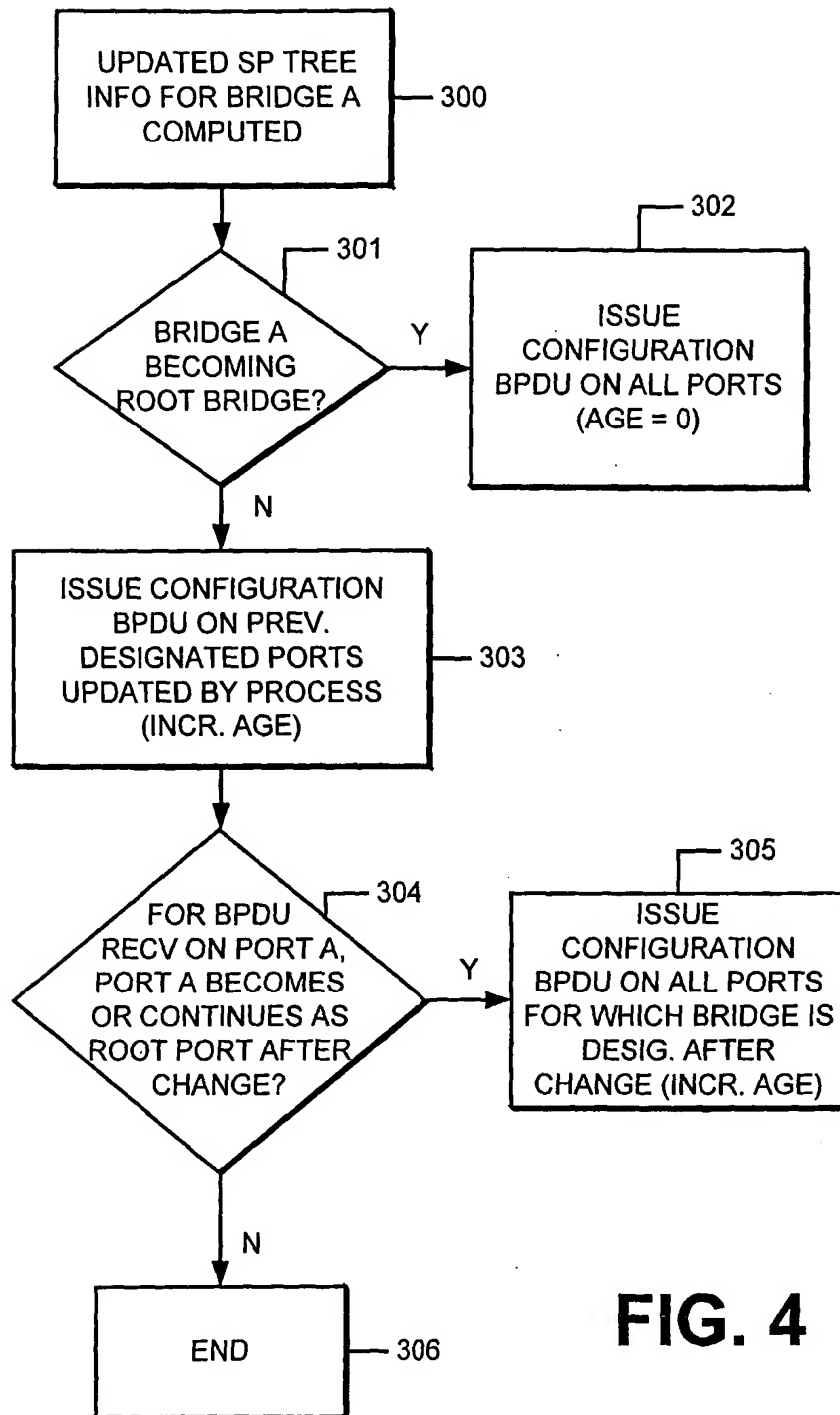


FIG.2  
PRIOR ART



**FIG. 3**

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**FIG. 4**

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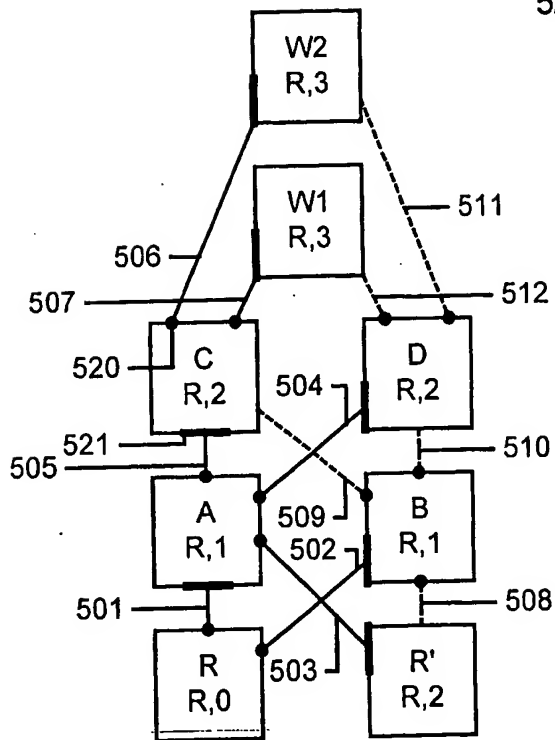


FIG. 5A

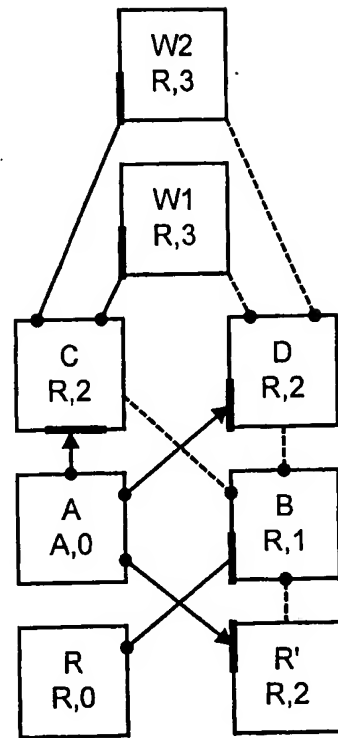


FIG. 5B

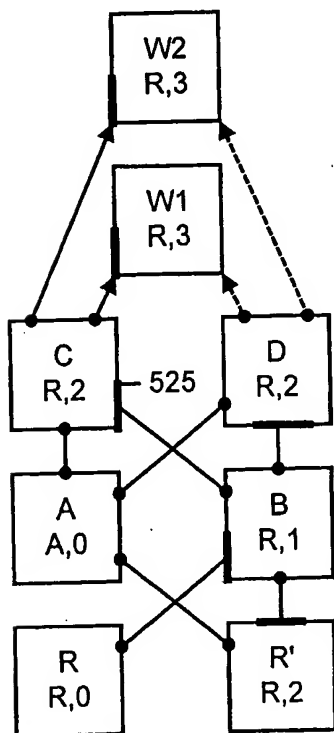


FIG. 5C

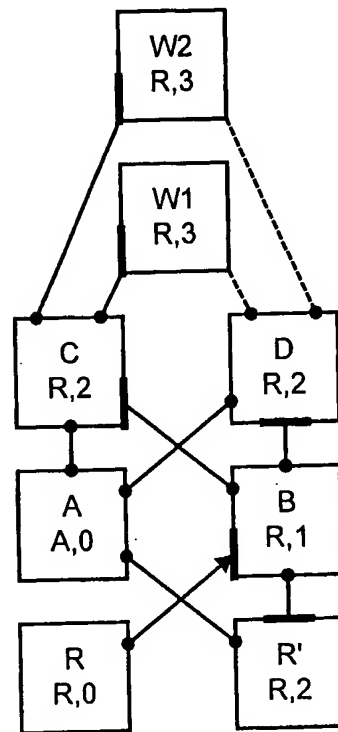


FIG. 5D

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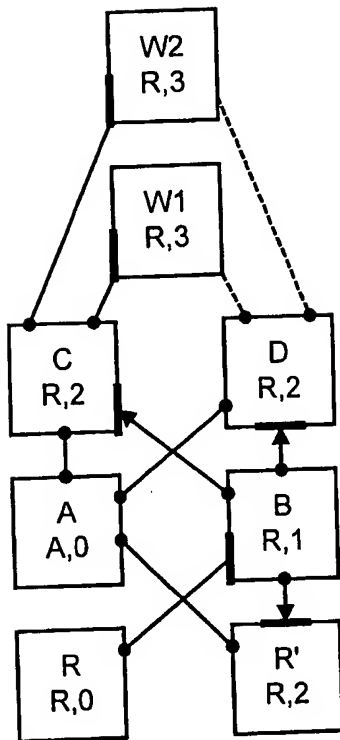


FIG. 5E

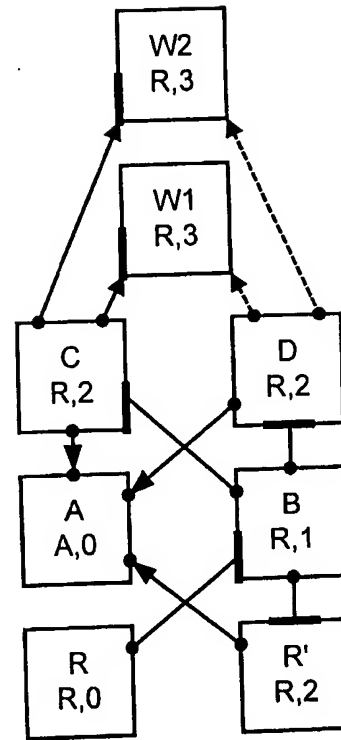


FIG. 5F

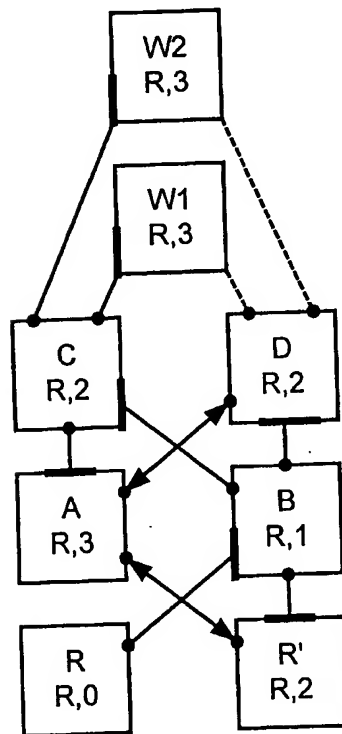


FIG. 5G

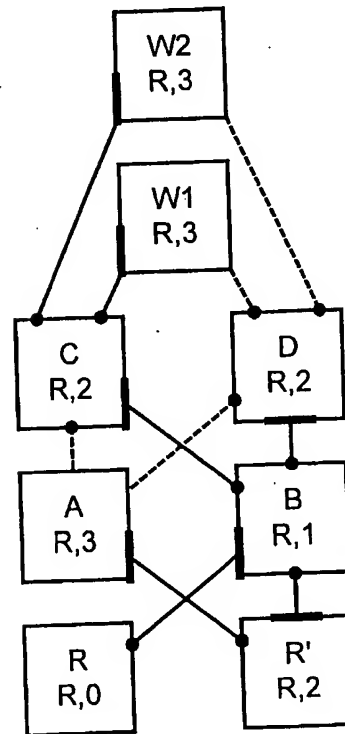


FIG. 5H

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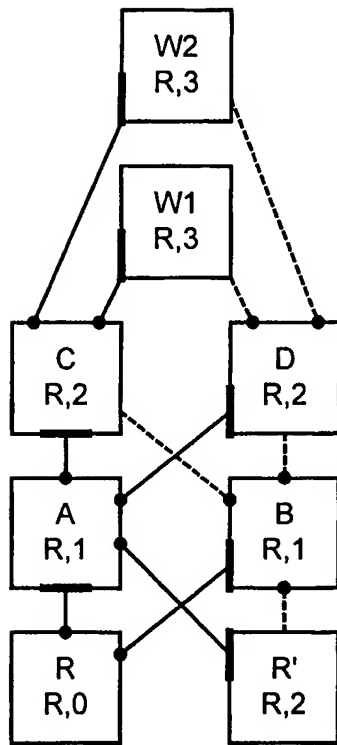


FIG. 6A

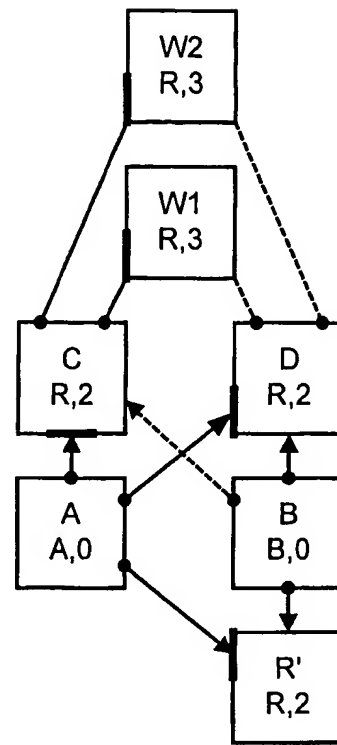


FIG. 6B

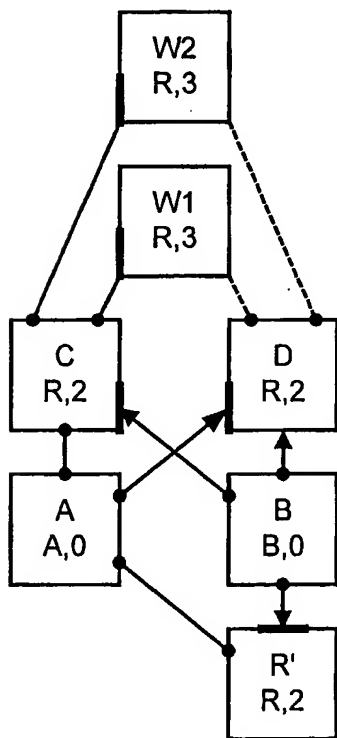


FIG. 6C

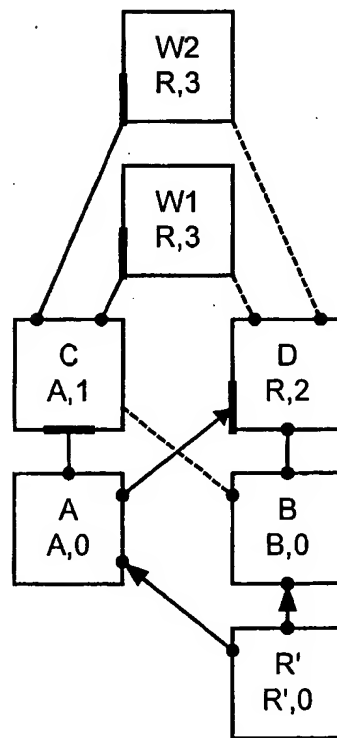


FIG. 6D

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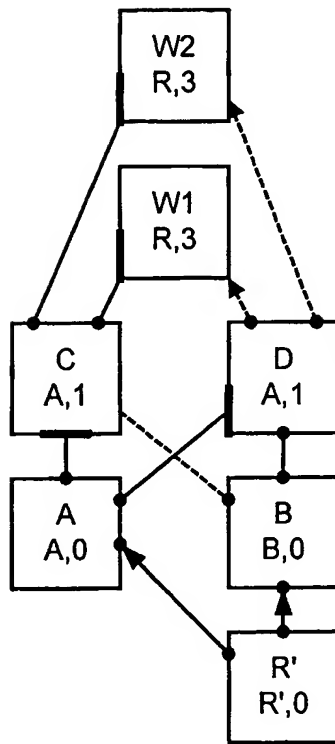


FIG. 6E

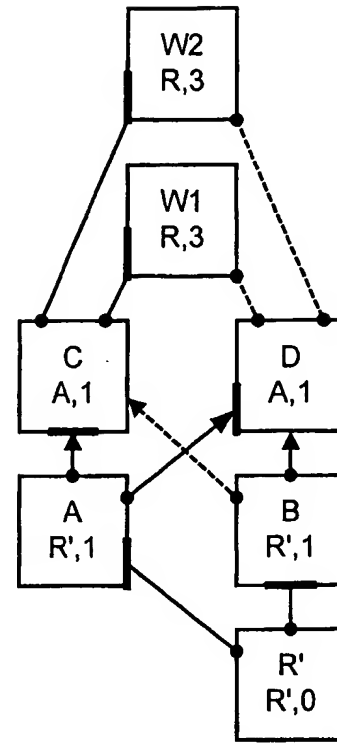


FIG. 6F

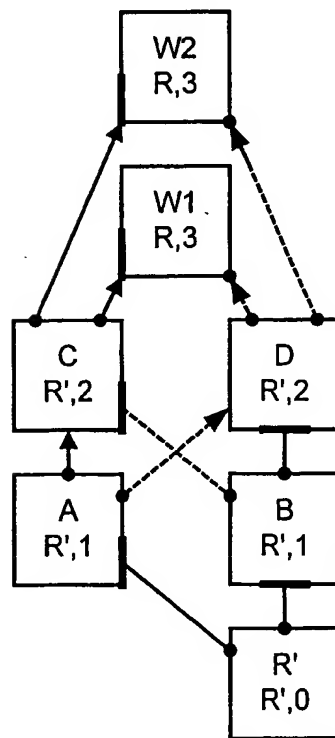


FIG. 6G

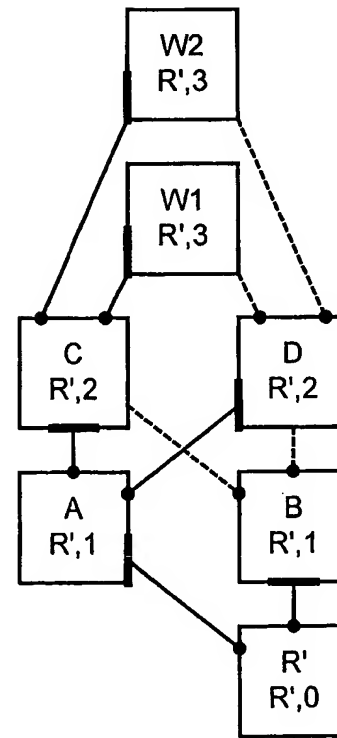


FIG. 6H



Fig. 7A — Port Roles and States, with enhanced transitions for point-to-point networks only

Port Role	Disabled Port	Root Port	Designated Port			Alternate Port
Port State	Disabled	Forwarding	Listening	Learning	Forwarding	Blocking
forwarding?	No	Yes	No	No	Yes	No
learning?	No	Yes	No	Yes	Yes	No
Transitions						
become disabled	X	Disabled	Disabled	Disabled	Disabled	Disabled
become root port	X	X	Root Port Forwarding	Root Port Forwarding	Root Port Forwarding	Root Port Forwarding
become designated <sup>1</sup> <sup>10</sup>	Designated Listening <sup>a</sup>	Designated Listening <sup>a</sup>	X	X	X	Designated Listening
become designated <sup>2</sup> <sup>11</sup>	Designated Listening <sup>a</sup>	Designated Forwarding	X	X	X	Designated Listening
become alternate <sup>12</sup>	X	Alternate Blocking	Alternate Blocking <sup>d</sup>	Alternate Blocking <sup>d</sup>	Alternate Blocking	X
forward delay timer expiry	X	X	Designated Learning <sup>a</sup>	Designated Forwarding	X	X

FIG. 7A

Fig. 7B — Port States, with enhanced transitions for point-to-point networks only

Port State	Disabled	Listening	Learning	Forwarding	Blocking
forwarding?	No	No	No	Yes	No
learning?	No	No	Yes	Yes	No
Events					
become disabled	X	Disabled	Disabled	Disabled	Disabled
become root port	X	Forwarding	Forwarding	—	Forwarding
become designated1	Listening <sup>a</sup>	—	—	—	Listening <sup>a</sup>
become designated2	Listening <sup>a</sup>	—	—	—	Listening <sup>a</sup>
become alternate	X	Blocking <sup>d</sup>	Blocking <sup>d</sup>	Blocking	X
forward delay timer expiry	X	Learning <sup>a</sup>	Forwarding	X	X
Transitions					

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FIG. 7B